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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/719,356	11/21/2003	Howard Sinkoff	7647-03222	3305

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BRINKLEY, MCNERNEY, MORGAN, SOLOMON & TATUM LLP  
SUITE 1900  
200 EAST LAS OLAS BLVD.  
FORT LAUDERDALE, FL 33301

EXAMINER

CRUZ, MAGDA

ART UNIT PAPER NUMBER

2851

DATE MAILED: 04/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/719,356

Applicant(s)

SINKOFF, HOWARD

Examiner

Magda Cruz

Art Unit

2851

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>11/21/03, 10/18/04</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “a directivity along a vertical axis relative to a normal line passing perpendicularly through a center of the projection screen is the same as a directivity along a horizontal axis relative to said normal line” (claims 16 and 19) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. In addition to Replacement Sheets containing the corrected drawing figure(s), applicant is required to submit a marked-up copy of each Replacement Sheet including annotations indicating the changes made to the previous version. The marked-up copy must be clearly labeled as "Annotated Sheets" and must be presented in the amendment or remarks section that explains the change(s) to the drawings. See 37 CFR 1.121(d)(1). Failure to timely submit the proposed drawing and marked-up copy will result in the abandonment of the application.

### ***Claim Objections***

3. Claim 6 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 6 is dependent of claim 6; therefore, the dependency of said claim is improper.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-6 and 15-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Schudel.

Schudel (US Patent Number 4,089,587) discloses:

- Regarding claim 1, a projection screen (10) comprising: a substrate (16) having at least a first surface (side of element 16, in touch with element 20); a reflective layer (20) having a first surface (side of element 20 in touch with element 16) and an opposing second surface (side of element 20 in touch with element 18), the second surface of the reflective layer (20) being attached to the first surface of the substrate (16); and a diffusion layer (18) having a first surface (21) defined by a matte finish (column 4, lines 25-26) and an opposing second surface (side of element 18 in touch with element 20), the second surface of the diffusion layer (18) being attached to the first surface (see Figure 2) of the reflective layer (20).
- Regarding claim 2, the reflective layer (20) comprises a film of aluminum (column 8, lines 55-56).
- Regarding claim 3, the first surface (side of element 20 in touch with element 16) of the reflective layer (20) has greater reflectivity than the second surface (side of element 20 in touch with element 18) of the reflective layer (20; column 10, lines 36-41).

- Regarding claim 4, the second surface of the reflective layer (20) has greater reflectivity than the first surface of the reflective layer (column 10, lines 15-18).
- Regarding claim 5, the diffusion layer (18) is a resin (column 4, lines 17-21; i.e. Mylar is a polyester film; since by definition a polyester film is a resin, we could say that Mylar is a resin).
- Regarding claim 6, the resin is one of polyethylene and polypropylene (column 4, lines 15-22).
- Regarding claim 15, the second surface (side of element 18 in touch with element 20) of the diffusion layer (18) has a substantially smooth finish (see Figure 2).
- Regarding claim 16, directivity along a vertical axis relative to a normal line passing perpendicularly through a center of the projection screen (10) is the same as directivity along a horizontal axis relative to said normal line (column 9, lines 1-7).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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7. Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schudel in view of Yamada et al.

a. Regarding claim 7, Schudel (US Patent Number 4,089,587) teaches the salient features of the present invention, except an optically transparent adhesive. However, Schudel discloses a second surface (side of element 18 in touch with element 20) of the diffusion layer (18) to the first surface (side of element 20 in touch with element 18) of the reflective layer (20).

Yamada et al. (US Patent Number 5,148,309) discloses an optically transparent adhesive (8).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize the optically transparent adhesive disclosed by Yamada et al. in combination with Schudel's invention, for the purpose of arranging the reflective layer and the diffusion layer laminated together to form an integral structure (Yamada et al., column 2, lines 60-64).

b. Regarding claim 8, Schudel (US Patent Number 4,089,587) teaches the salient features of the present invention, except an adhesive that attaches the first surface of the substrate to the second surface of the reflective layer. However, Schudel discloses first surface (side of element 16, in touch with element 20) of the substrate (16) in contact to the second surface (side of element 20 in touch with element 16) of the reflective layer (20).

Yamada et al. (US Patent Number 5,148,309) discloses an adhesive (8).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize the adhesive disclosed by Yamada et al. in combination with Schudel's invention, for the purpose of arranging the reflective layer and the diffusion layer laminated together to form an integral structure (Yamada et al., column 2, lines 60-64).

8. Claims 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schudel in view of Nezu.

a. Regarding claim 9, Schudel (US Patent Number 4,089,587) teaches the salient features of the present invention, except a diffusion layer having a thickness greater than one one-thousandth of an inch (one mil). However, Schudel discloses a diffusion layer (18).

Nezu (US Patent Number 5,456,967) discloses a diffusion layer having a thickness greater than one mil (column 6, lines 20-22).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize a diffusion layer having a thickness greater than one mil, like the one disclosed by Nezu, in combination with Schudel's invention, for the purpose of reducing a lowering, in the quantity of the reflected light to keep the projected light brightly (Nezu, column 6, lines 23-24).

b. Regarding claim 10, Schudel (US Patent Number 4,089,587) teaches the salient features of the present invention, except a thickness of the diffusion layer being in the range of approximately two mils to approximately eight mils. However, Schudel discloses a diffusion layer (18).



Nezu (US Patent Number 5,456,967) discloses a thickness of the diffusion layer being in the range of approximately two mils to approximately eight mils (column 6, lines 27-30).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize a thickness of the diffusion layer being in the range of approximately two mils to approximately eight mils, like the one disclosed by Nezu, in combination with Schudel's invention, for the purpose of scattering the light beam, thereby increasing the half-value angle (Nezu, column 6, lines 29-30).

c. Regarding claim 11, Schudel (US Patent Number 4,089,587) teaches the salient features of the present invention, except a substrate comprising a polyvinylchloride and having a thickness in the range of approximately five mils to approximately eight mils. However, Schudel discloses a substrate (16).

Nezu (US Patent Number 5,456,967) discloses a substrate comprising a polyvinylchloride (column 5, lines 62-63), having a thickness in the range of approximately five mils to approximately eight mils (column 6, lines 27-30).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize a substrate comprising a polyvinylchloride and having a thickness in the range of approximately five mils to approximately eight mils, like the one disclosed by Nezu, in combination with Schudel's invention, for the purpose of scattering the light beam, thereby increasing the half-value angle (Nezu, column 6, lines 29-30).

d. Regarding claim 12, Schudel (US Patent Number 4,089,587) teaches the salient features of the present invention, except a reflective layer having a thickness in the range of approximately one-third of a mil to approximately one mil. However, Schudel discloses a reflective layer (20).

Nezu (US Patent Number 5,456,967) discloses a reflective layer (column 6, line 25) having a thickness in the range of approximately one-third of a mil to approximately one mil (column 6, lines 27-28).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize a reflective layer having a thickness in the range of approximately one-third of a mil to approximately one mil, like the one disclosed by Nezu, in combination with Schudel's invention, for the purpose of scattering the light beam, thereby increasing the half-value angle (Nezu, column 6, lines 29-30).

e. Regarding claim 13, Schudel (US Patent Number 4,089,587) teaches the salient features of the present invention, except a combined thickness of the substrate, the reflective layer, and the diffusion layer being in the range of approximately eight mils to twenty mils. However, Schudel discloses a substrate (16), a reflective layer (20), and a diffusion layer (18).

Nezu (US Patent Number 5,456,967) discloses a combined thickness of the substrate, the reflective layer, and the diffusion layer (column 6, lines 25-26) being in the range of approximately eight mils to twenty mils (column 6, lines 27-28).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize a combined thickness of the substrate, the reflective layer, and the diffusion layer being in the range of approximately eight mils to twenty mils, like the one disclosed by Nezu, in combination with Schudel's invention, for the purpose of scattering the light beam, thereby increasing the half-value angle (Nezu, column 6, lines 29-30).

9. Claims 14, 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schudel in view of Nishitani.

Schudel (US Patent Number 4,089,587) teaches the salient features of the present invention (as explained above, see Rejection under 102(b)), except a substrate being sufficiently flexible to enable the projection screen to be wound around a roller during periods of non-use. However, Schudel discloses a substrate (16), a screen that is partially deformable, resilient material (column 2, lines 7-9).

Nishitani (US Patent Number 5,127,722) discloses a substrate (3) being sufficiently flexible to enable the projection screen (1) to be wound around a roller (5) during periods of non-use (column 2, lines 25-39).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize the substrate being sufficiently flexible to enable the projection screen to be wound around a roller during periods of non-use, like the one disclosed by Nishitani, in combination with Schudel's invention, for the purpose of having a large screen comprising a flat surface and easy for carrying and storing (Nishitani, column 2, lines 27-29).

10. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schudel in view of Nezu and further in view of Yamada et al.

Schudel (US Patent Number 4,089,587) teaches the salient features of the present invention (as explained above, see Rejection under 102(b)), except a flexible substrate having at least a first surface and a thickness of approximately five mils to approximately eight mils; a metallic layer having a first surface and an opposing second surface and having a thickness in the range of approximately one-third of a mil to approximately one mil; a first adhesive layers positioned between the flexible substrate and the metallic layer, that attaches the second surface of the metallic layer to the first surface of the substrate; a diffusion layer further having a thickness in the range of approximately two mils to approximately eight mils; and a second, optically transparent adhesive layer, positioned between the metallic layer and the diffusion layer, that attaches the second surface of the diffusion layer to the first surface of the metallic layer. However, Schudel discloses a substrate (16), a screen that is partially deformable, resilient material (column 2, lines 7-9), a reflective layer (20), and a diffusion layer (18).

Nezu (US Patent Number 5,456,967) discloses a substrate comprising a polyvinylchloride (column 5, lines 62-63), having a thickness in the range of approximately five mils to approximately eight mils (column 6, lines 27-30).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize a substrate comprising a polyvinylchloride and having a thickness in the range of approximately five mils to approximately eight mils, like the

one disclosed by Nezu, in combination with Schudel's invention, for the purpose of scattering the light beam, thereby increasing the half-value angle (Nezu, column 6, lines 29-30).

Furthermore, Nezu (US Patent Number 5,456,967) discloses a reflective layer (column 6, line 25) having a thickness in the range of approximately one-third of a mil to approximately one mil (column 6, lines 27-28).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize a reflective layer having a thickness in the range of approximately one-third of a mil to approximately one mil, like the one disclosed by Nezu, in combination with Schudel's invention, for the purpose of scattering the light beam, thereby increasing the half-value angle (Nezu, column 6, lines 29-30).

Also, Nezu (US Patent Number 5,456,967) discloses a thickness of the diffusion layer being in the range of approximately two mils to approximately eight mils (column 6, lines 27-30).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize a thickness of the diffusion layer being in the range of approximately two mils to approximately eight mils, like the one disclosed by Nezu, in combination with Schudel's invention, for the purpose of scattering the light beam, thereby increasing the half-value angle (Nezu, column 6, lines 29-30).

Yamada et al. (US Patent Number 5,148,309) discloses an adhesive (8) positioned between a substrate (2) and a layer (9).

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It would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize the adhesive disclosed by Yamada et al. in combination with Schudel and Nezu's invention, for the purpose of arranging the reflective layer and the diffusion layer laminated together to form an integral structure (Yamada et al., column 2, lines 60-64).

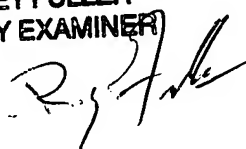
### **Conclusion**

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Magda Cruz whose telephone number is (571) 272-2114. The examiner can normally be reached on Monday through Thursday 8:00-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571) 272-2258. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**RODNEY FULLER**  
**PRIMARY EXAMINER**



Magda Cruz  
Patent Examiner  
April 12, 2005